

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0038547; AI 42007; PER20070001** to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Town of Jonesboro
 South Oxidation Pond
 P.O. Box 610
 Jonesboro, LA 71251

- II. **PREPARED BY:** Christoher K. Bertrand

- DATE PREPARED:** April 24, 2007

- III. **PERMIT ACTION:** reissue LPDES permit LA0038547, AI 42007; PER20070001

- LPDES application received: March 9, 2007

- EPA has not retained enforcement authority.
- LPDES permit issued: April 1, 2002
- LPDES permit expired: March 31, 2007

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the South Jonesboro Population of 1,500 and a 500 Bed Prison.

- B. The permit application does not indicate the receipt of industrial wastewater.

- C. The facility is located on Industrial Drive in Jonesboro, Jackson Parish.

- D. The treatment facility consists of a 10 acre single cell oxidation pond with chlorination and dechlorination. Disinfection is by chlorination.

- E. Outfall 001

Discharge Location: Latitude 32° 12' 56" North
 Longitude 92° 42' 54" West

Description: treated sanitary wastewater

Design Capacity: 0.300 MGD

Type of Flow Measurement which the facility is currently using:

Totalizing Meter

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Please note that if the facility grows to a discharge beyond the design capacity of the facility, additional sewage treatment must be added with prior approval of the facility's plans by the Louisiana Department of Health and Hospitals and an authorization request must be submitted to the LDEQ. Also, if the expected flow reaches or exceeds the design capacity of the facility, a permit modification may be required.

V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into Antwine Creek in segment 081401 of the Ouachita River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

Subsegment 081401, Dugdemona River – Headwaters to junction with Big Creek, is not listed on LDEQ's Final 2004 303(d) List as impaired, and to date no TMDL's have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

The designated uses and degree of support for Segment 081401 of the Ouachita River Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Partial	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Full	Full	Full	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 081401 of the Ouachita River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 081401 of the Ouachita River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006, from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required.

It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

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VIII.

PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Christoher K. Bertrand
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

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IX. PROPOSED PERMIT LIMITS:**Final Effluent Limits:****OUTFALL 001**

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
BOD ₅	75	30 mg/l	45 mg/l	Limits are set in accordance with the Ouachita River Basin Plan for facilities of this treatment type and size.
TSS	225	90 mg/l	135 mg/l	Limits are set in accordance with the Ouachita River Basin Plan for facilities of this treatment type and size.

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

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3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X.

PREVIOUS PERMITS:

LPDES Permit No. LA0038547: Issued: April 1, 2002
Expired: March 31, 2007

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg.</u>	<u>Weekly Avg.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow-MGD	Report	Report	Continuous	Recorder ¹
BOD ₅	30 mg/l	45 mg/l	2/month	Grab
TSS	90 mg/l	135 mg/l	2/month	Grab
Fecal Coliform				
Colonies/100ml	200	400	2/month	Grab
pH (Standard Units) ²	---	---	2/month	Grab

¹ Includes totalizing meter or totalizer.

² The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units. The permittee shall report on the Discharge Monitoring Reports both the minimum and maximum instantaneous pH values measured.

XI.

ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following inspections were performed during the period beginning January 1, 2005 and ending January 31, 2007 for this facility.

Date – October 21, 2005

Inspector - LDEQ

Findings and/or Violations -

1. The facility is an oxidation pond with contact chamber with a design capacity of 0.35 MGD. The site is fenced and locked.
2. The oxidation pond had an algal bloom and the effluent was turbid with a beige color. The effluent smelled strongly of chlorine. Mr. Ricky Green (Operator) turned down the level of chlorine. It appeared the beige color came from the chlorine interacting with the algae. A hach chlorine sample was taken downstream at Industrial Drive at 1150 hrs. The result was 0.6 ppm and the receiving stream was beige colored. The poly level flow meter showed 46 GPM.
3. Flow records, lab analysis, and calibration records were provided. There were no exceedances in the past year.
4. Samples were analyzed by Analab in Kilgore, TX, except for fecal coliform which is analyzed by Bio-Analytical Labs in Doyline, LA.
5. A permit with an effective date of April 1, 2002, and was issued on March 11, 2002.

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6. A November 20, 2003 letter to LDEQ requesting plans to add a prison discharge to the permit. LDEQ replied on January 9, 2004, stating that the permit is to be modified if the prison is added to the south pond. This letter was received by the facility on January 20, 2004.
7. There were no aerators present in the oxidation pond.

The following Areas of Concern were noted:

1. The effluent was beige colored and smelled strongly of chlorine. A hach chlorine sample taken downstream showed 0.6 ppm.

B) Compliance and/or Administrative Orders

A review of the files indicates that there are no enforcement actions administered against this facility as of March 27, 2007.

C) DMR Review

A review of the discharge monitoring reports for the period beginning January 1, 2005, through January 31, 2007, has revealed the following violations:

<u>Effluent Characteristic</u>	<u>Number of Violations</u>
BOD ₅ - (concentration)	1
BOD ₅ - (mass)	0
TSS - (concentration)	0
TSS - (mass)	0
Fecal Coliform	0
pH	0

<u>Parameter</u>	<u>Outfall</u>	<u>Period of Excursion</u>	<u>Permit Limit</u>	<u>Reported Quantity</u>
BOD ₅ , Avg.	001	June 2006	30.00 mg/l	30.80 mg/l

No DMRs were present in the Electronic Document Management System (EDMS) for the months of:

- December 2005
- November 2006

No Discharge was reported for the following months:

- September 2005
- July 2006
- August 2006
- September 2006
- October 2006
- December 2006

No Analysis Conducted (NAC) due to no flow on sample pick up date was reported for:

- January 2007

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XII. ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon water quality studies. These studies may indicate the need for more advanced wastewater treatment. Studies of similar dischargers and receiving water bodies have resulted in monthly average effluent limitations of 5 mg/l CBOD₅, and 2 mg/l NH₃-N. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions:

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.300 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.300 \text{ MGD} \times 30 \text{ mg/l} = 75.06 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.10 and 0.50 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Continuous	Recorder
BOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Dissolved Oxygen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

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Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Town of Jonesboro, South Oxidation Pond, March 9, 2007.